



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,298	12/29/2000	Peter R. Gawthrop	10541/125	1456
29074	7590	11/17/2003	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60611			LEO, LEONARD R	
			ART UNIT	PAPER NUMBER
			3753	
			DATE MAILED: 11/17/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,298

Applicant(s)

GAWTHROP ET AL.

Examiner

Leonard R. Leo

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

Art Unit: 3753

DETAILED ACTION

The amendment filed August 21, 2003 has been entered. Claims 1-20 are pending, and claims 7-20 remain withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Benzinger.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Woodhull, Jr. et al.

In the rejections above, with respect to the recitation of horizontal manifolds, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Therefor, orienting the device of Benzinger and Woodhull, Jr. et al clockwise 90 degrees will read exactly on the claim.

Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Saperstein.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bhatti et al.

Art Unit: 3753

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Inaba et al (Figure 7).

In all rejections above, the “wherein fluid entering ... of the upper manifold” clause is considered to be functional language bearing no patentable weight in this instance. See MPEP 2114.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al in view of Burk et al.

Inaba et al discloses all the claimed limitations except an internal dryer.

Burk et al discloses a condenser comprising a pair of opposed manifolds 13, 44 or 45; a plurality of tubes 11 and extended surfaces 12; and internal dryer 32 for the purpose of optimizing space requirements.

Since Inaba et al and Burk et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Burk et al would have been recognized in the pertinent art of Inaba et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Inaba et al an internal dryer for the purpose of optimizing space requirements as recognized by Burk et al.

Response to Arguments

Applicants' remarks with respect to the restriction requirement are moot. The requirement was made final in the previous Office action. For the record, the differences between the species of Figure 4 and Figure 9 are not merely the number of passes within the heat exchanger. The claims clearly recite "the number of lower baffles," which provide "bypassing." Applicants should direct their remarks in a petition filed under 37 CFR 1.144.

The Examiner agrees with applicants with respect to giving patentable weight of "wherein" clauses *with structural definition*. Claim 1 recites three "wherein" clauses. The first clause recites a *structural relationship* of "the near end of the upper manifold, the at least one first tube and the near end of the lower manifold are in a vertical relationship." The second clause recites a *structural relationship* of "the lower manifold, the at least one second tube and the near end of the upper manifold are in a vertical relationship." However, the third clause, unlike the first and second clauses, recites a nonstructural relationship of "*the fluid*" "entering the upper manifold and the at least one first tube cools and condenses and flows by gravity into the lower manifold, the lower baffle in the lower manifold allows only liquid to enter the second pass, and the liquid enters the second pass and leaves through the far end of the upper manifold." While there is structure in the third "wherein" clause, the structure is only present to *define the function of the fluid*. Therefore, the third "wherein" clause is given no patentable weight in this instance, since the clause merely recites the function of the *non-structural* recitation of a "fluid."

Applicants' remarks with respect to Benzinger have been fully considered but they are not persuasive. The Examiner regrets not "pointing to any particular figure or passage." Typically, the figure on the front of a prior art reference is relied upon for a rejection. There is

Art Unit: 3753

no requirement that the prior art disclosure be "pointed out," especially when the prior art reference is believed clear to one having ordinary skill in the art. Applicants' argue the functionality of Benzinger is different than the claimed invention. However, there is no structural difference between the device of Benzinger and the claimed invention. The only difference is the orientation of the device of Benzinger. As noted action in the Election/Restrictions section of the previous Office, the claimed invention is merely a device. The functional name given to the device for its intended function in a given environment does not structural^{ly} change the device. The indoor unit of a heat pump is an "evaporator" in cooling mode, and a "condenser" in heating mode. The indoor unit has not structurally changed, yet its function has changed. Again, should the claimed invention be patented, would there be infringement if the claimed device were employed upside down, on its side or employing a single phase fluid, such as only gas phase or only liquid phase? Applicants are reminded the "bypass baffle" of the Markush group was elected. Either top or bottom element 23 with aperture 24 on the right-side manifold (i.e. lower manifold) is read as the "bypass baffle."

Applicants' remarks with respect to Woodhull, Jr. have been fully considered but they are not persuasive. The discussion above with respect to Benzinger is applicable.

Applicants' remarks with respect to Saperstein have been fully considered but they are not persuasive. The Examiner regrets not "pointing to any particular figure or passage." However, there is only one embodiment depicting the heat exchanger structure. This prior art reference was submitted by applicants, and further explanation of its relevance is not deemed necessary. Element 24 is read as the "lower~~s~~ baffle." There is nothing structurally different

Art Unit: 3753

between the lower baffle of the claimed invention and Saperstein. The discussion above with respect to Benzinger is applicable.

Applicants' remarks with respect to Bhatti et al have been fully considered but they are not persuasive. The Examiner regrets not "pointing to any particular figure or passage."

Typically, the figure on the front of a prior art reference is relied upon for a rejection. In this patent, Figure 1 is prior art and does not disclose a "lower baffle." Therefore, Figure 2 as depicted on the front is the relevant figure. Element 70 is read as the "lower~~s~~ baffle." There is nothing structurally different between the lower baffle of the claimed invention and Bhatti et al. The discussion above with respect to Benzinger is applicable.

Applicants' remarks with respect to Inaba et al have been fully considered but they are not persuasive. Figure 7 discloses a condenser with multipass flow through a condenser, where a lower baffle (such as baffle 27 in Figure 2) exist^s between the penultimate and last passes. Inaba et al discloses inlet port 62 and outlet port 61. Even though applicants have read the "third embodiment" description of Figure 7, the Examiner will "point out" the structure read on the claimed limitations. Inlet port 62 and outlet port 61 meets claim 2. The lower baffle mentioned above (such as baffle 27 in Figure 2) meets claim 3. The dryer of claim 4 is not in the grounds of rejection. Fins 34a meets claim 5. The rejection of claim 6 is withdrawn.

Applicants' remarks with respect to Inaba et al ~~h~~and Burk et al have been fully considered but they are not persuasive. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or *in the knowledge generally available to one of ordinary skill in the*

Art Unit: 3753

art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). Applicants are directed to the following passage which is present in the previous and instant Office actions:

“It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Inaba et al an internal dryer *for the purpose of optimizing space requirements* as recognized by Burk et al.”

Again, the Examiner regrets not “pointing to any particular passage.” One having ordinary skill in the art would recognize the liquid tank 24a is also a “dryer” containing a “drying agent 20,” as in the other embodiments of Inaba et al. Thus, one of ordinary skill in the art would recognize the space savings involved in locating the dryer within the condenser as a whole.

Conclusion

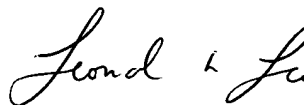
THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 3753

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648. Status of the application may also be obtained from the Internet: <http://pair.uspto.gov/cgi-bin/final/home.pl>

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.



LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3743

November 16, 2003